

Artificial Intelligence in Academic Settings: A Case Study of Benefits and Challenges for Teachers and Students at GenSantos Foundation College, Inc.

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Abstract

This study examines the integration of Artificial Intelligence (AI) tools at GenSantos Foundation College, Inc., focusing on how students and faculty utilize these technologies for research, learning, and output creation. Utilizing a descriptive research design with a sample of 132 participants (112 students and 20 teachers), the research employed regression analysis, T-tests, and Chi-Square tests to analyze perceptions. Results indicate a significant correlation between frequent AI usage and perceived benefits such as time-efficiency and improved academic performance. However, critical concerns regarding over-reliance, academic dishonesty, and the erosion of creativity were identified. The study concludes that while AI aligns with Sustainable Development Goal 4 by enhancing 21st-century digital literacy, institutional guidelines are necessary to maintain academic integrity.

Keywords: Artificial Intelligence; AI Usage; Educational Technology; Perceived Benefits; Perceived Challenges

1. Introduction

1.1 The Global Evolution of Educational Technology

The landscape of global education is currently navigating a radical paradigm shift, driven by the rapid proliferation and integration of Artificial Intelligence (AI). This technological revolution is not merely a supplementary addition to the classroom but is fundamentally restructuring the pedagogical infrastructure of the 21st century. As technology continues to grow, AI tools have transitioned from niche computational aids to ubiquitous classroom staples, redefining the roles of both instructors and learners.

At its core, AI in education refers to the use of intelligent systems ranging from Large Language Models (LLMs) to specialized diagnostic software that can simulate human cognitive functions such as problem-solving and learning. Tools like ChatGPT, Grammarly, and QuillBot have become primary assets for students attempting to navigate increasingly complex academic requirements. This study focuses on GenSantos Foundation College, Inc., as a microcosm of this global phenomenon, seeking to understand how these technologies are being utilized, perceived, and ethically managed within a localized academic context.

1.2 Statistical Trends and the Velocity of Adoption

The velocity at which AI has permeated higher education is unprecedented in the history of educational technology. According to recent longitudinal data cited by Josh Freeman from the Higher Education Policy Institute (2025), student engagement with AI platforms surged from 66% in 2024 to a staggering 92% by 2025. This rapid escalation suggests that AI is no longer an alternative or a "backup" resource; for the modern student, it has become a central pillar of the learning process.

This trend is not restricted to the student body. Educators are also increasingly reliant on these systems to manage the administrative and pedagogical burdens of modern schooling. Research by Siddhi Naik (2025) indicates that

approximately 60% of teachers now utilize AI to facilitate grading systems, lesson planning, and the creation of personalized learning activities. Furthermore, Bryan Brown from Stanford University posits that AI serves as a critical support mechanism for faculty members who must guide large, diverse cohorts of students simultaneously, allowing for a level of scalability that was previously impossible.

1.3 Theoretical Framework: Personalization and Efficiency

The primary driver for AI adoption is the promise of enhanced efficiency and radical personalization. AI does more than perform simple tasks; it possesses the capability to analyze vast amounts of data to provide instantaneous, personalized feedback tailored to a student's specific learning style and pacing. For learners at institutions like GenSantos Foundation College, AI offers the ability to summarize exhaustive lessons "in a snap of a finger" and clarify difficult, complex topics in seconds.

This efficiency directly impacts student productivity. Tools like Grammarly assist in refining the quality of work output by correcting grammatical errors and suggesting optimal sentence constructions. Consequently, students can complete rigorous tasks immediately without sacrificing work quality. As Sanusi et al. (2024) observe, these tools help students manage their school tasks better while allowing them to guide their own learning paths.

1.4 The Cognitive and Ethical Risks of Over-Reliance

Despite the evident benefits, the "rampant use" and "heavy reliance" on AI have sparked significant anxiety within the academic community. A central concern is the potential for cognitive erosion. If students habitually allow AI to write their essays or solve mathematical problems without engaging with the underlying logic, they risk failing to develop vital competencies such as critical thinking, logical reasoning, and analytical skills. This dependency may lead to a future where students cannot solve real-life problems because they have stopped analyzing and thinking for themselves.

Furthermore, researchers like Verma and Ciesla (2024) warn that AI can stifle creativity and increase the likelihood of students being implicated in plagiarism. The ease of submitting AI-generated work as one's own raises profound questions regarding academic honesty and the definition of original content. Because AI-generated writing is becoming increasingly difficult to detect, teachers struggle to identify whether an output is "truly organic".

1.5 Social Equity and the Digital Divide

The integration of AI also highlights existing social inequalities. While AI provides high-quality resources, access is often contingent upon socioeconomic status. Students from low-income families or far-flung areas may lack the hardware, such as personal computers and mobile phones, or the stable internet connection required to access these tools. This creates a "bigger gap" between those with technological access and those without, necessitating intervention from policymakers to ensure that no student is left behind.

Ethical concerns also extend to data privacy and algorithmic bias. AI systems often collect sensitive information, including school records and personal data, raising questions about how this information is stored and utilized. Moreover, if training data is biased, the AI may favor certain writing styles over others, leading to unfair evaluations.

1.6 Study Objectives and Alignment with Global Goals

This research at GenSantos Foundation College seeks to find a "balanced approach" to technology. It is essential for AI to be used to support human intelligence, not replace it. By examining how factors like usage frequency, role, and experience relate to perceptions of AI, this study aims to help the institution maintain academic standards while embracing the future.

Finally, this study aligns with Sustainable Development Goal 4 (Quality Education), specifically Target 4.4. By identifying how AI can enhance digital literacy and the competencies needed for the 21st century, this research provides the evidence-based foundation required to create clear guidelines and training programs that ensure AI is used responsibly and effectively in schools and beyond.

2. Methodology

2.1 Research Design

This study utilized a non-experimental descriptive research design aimed at documenting the current perceptions and usage patterns of AI tools within a specific collegiate environment.

2.2 Participants and Sampling Technique

A random sampling technique was employed to select 132 participants from GenSantos Foundation College, Inc.. The cohort consisted of 112 students (84.1%) and 20 teachers (15.9%), providing a diverse range of perspectives from both primary stakeholder groups.

2.3 Research Instrument and Validation

Data were collected via a researcher-developed structured questionnaire consisting of three sections: demographic profiles, student perceptions, and teacher observations. To ensure content validity and reliability for a master's-level study, the instrument underwent formal validation by an expert specialist in the field.

2.4 Data Gathering Procedure

Data were collected through a face-to-face survey conducted at GenSantos Foundation College, Inc. The researchers personally administered structured questionnaires to selected student and teacher participants during an approved data collection period.

The survey instrument was designed to generate quantitative data for descriptive statistics, regression analysis, t-tests, and Chi-square tests. Participation was voluntary, and confidentiality of responses was ensured. The completed questionnaires were retrieved immediately after administration.

No interventions, pre-tests, post-tests, or control and treatment groups were included, as the study followed a non-experimental descriptive research design.

2.5 Data Analysis Procedure

Quantitative data were processed using the following methods:

- Descriptive Statistics: Used to summarize frequency of usage and mean perception scores.
- Regression Analysis: Utilized to determine how usage frequency and demographic factors predict perceived benefits.
- T-tests and Chi-Square Tests: Performed to identify significant differences in perceptions based on the participant's role (student vs. teacher).

2.6 Ethical Considerations

The study followed the ethical guidelines. Participants were informed of the purpose of the study, and their consent was received before participating. All information was kept private and confidential.

3. Results and Discussion

3.1 Usage Patterns and Perceived Value

Descriptive analysis revealed a comparative overview of perceptions of AI between students and teachers at GenSantos Foundation College. The student demographic, consisting of 112 respondents, reported a relatively high level of engagement with AI tools, with 43.2% indicating daily usage. This group recorded a high mean score for perceived benefits of 4.5, suggesting strong recognition of AI's usefulness, particularly in enhancing learning

efficiency, while their mean perceived challenges score was 3.2, reflecting moderate concerns. In contrast, the teacher demographic, composed of 20 participants, reported less frequent interaction with AI, with 40% indicating occasional use. Teachers reported a slightly lower mean perceived benefit score of 4.3, but a higher mean perceived challenge score of 3.6, indicating greater awareness of potential risks and limitations associated with AI use. Overall, the table highlights clear differences in usage frequency and perceptions of both benefits and challenges between students and teachers.

3.2 Regression and Comparative Analysis

Regression analysis examined the effect of AI usage frequency on participants' perceived academic benefits. The results show that AI usage frequency is the strongest and most significant predictor ($\beta = 0.351$, $t = 4.38$, $p = 0.0001$), indicating that more frequent use of AI is associated with higher perceived benefits. Age also demonstrated a small but statistically significant effect ($\beta = 0.02$, $t = 2.02$, $p = 0.045$), suggesting that younger participants tend to report slightly greater perceived benefits. The model's constant was significant ($\beta = 2.12$, $t = 4.71$, $p = 0.0001$), reflecting a meaningful baseline level of perceived benefits. Overall, the findings confirm that AI usage frequency is the primary determinant of perceived academic benefits, while age plays a modest supporting role.

A t-test comparing stakeholder groups revealed that students reported significantly higher perceived benefits from AI tools ($M = 4.5$, $SD = 0.6$) than teachers ($M = 4.3$, $SD = 0.7$), with the difference reaching statistical significance ($t = 3.21$, $p = 0.002$). This indicates greater acceptance and integration of AI among students. Consistently, the chi-square test showed that role (student or teacher) significantly influences perceptions of AI's value in academic contexts.

3.3 T-Test Results: Students vs. Teachers Perceived Benefits

This summarizes the results of the t-test comparing students' and teachers' perceived benefits of AI tools. The student group recorded a mean perceived benefit score of 4.5 with a standard deviation of 0.6, indicating a generally high and consistent perception of AI's usefulness. In comparison, the teacher group reported a slightly lower mean perceived benefit of 4.3 and a standard deviation of 0.7, reflecting more variability in their responses. The comparison between the two groups yielded a t-value of 3.21 with a p-value of 0.002, which is statistically significant. These results indicate that students perceive significantly greater benefits from AI tools than teachers, highlighting a meaningful difference in how the two groups evaluate the value of AI in the academic setting.

Challenges and Integrity

While benefits are high, teachers expressed greater concern regarding the risks, yielding a higher "Challenge" mean of 3.629. Concerns center on "academic dishonesty" and the inability to detect AI-generated content. The T-test ($t = 3.21$, $p = 0.002$) confirms a statistically significant difference in how students and teachers weigh these risks.

4. Conclusion and Recommendations

The study concludes that while AI tools offer significant opportunities for enhancing academic productivity and personalized learning, they must be managed with caution to prevent the erosion of critical thinking skills. AI should be positioned as a supplement to not a replacement for human intelligence.

Based on these findings, the study offers the following recommendations:

- **Institutional Policy:** The college should establish clear guidelines defining the "appropriate use" of AI to mitigate risks of academic dishonesty.
 - **Stakeholder Training:** Comprehensive training programs should be implemented for both students and teachers to foster responsible and ethical AI literacy.
 - **Longitudinal Research:** Future studies should investigate the long-term impact of AI on student creativity and the development of real-world problem-solving skills.
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